



# **Committee Draft 2005 Strategic Transmission Investment Plan**

Prepared in Support of the 2005  
Integrated Energy Policy Report  
Proceeding

(04-IEP-01K)

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# Topics Covered

- Legislation (PRC section 25324)
- Summary of Key Findings and Recommendations
  - Project recommendations
  - Actions to facilitate project development
  - Planning and permitting recommendations
  - Other recommendations
- Next Steps



# Strategic Plan

- SB 1565 (Bowen) added PRC section 25324
  - Energy Commission shall adopt a strategic plan for the state's electric transmission grid
  - The plan shall identify and recommend transmission investments that:
    - Ensure reliability
    - Relieve congestion
    - Meet future load growth in load and generation, including but not limited to: renewable resources, energy efficiency, and other demand reduction



## **Suggested Criteria for Inclusion of Transmission Projects in the Strategic Plan**

- Near term (on-line date by 2010)
- In need of siting approval
- Meets the PRC section 25324 guidelines (noted on previous slide)
- Consistent with 2003 and 2004 Energy Report recommendations (e.g., provides strategic benefits)
- Conforms to SB 2431 (1988) legislative findings encouraging efficient use and expansion of existing right-of-way

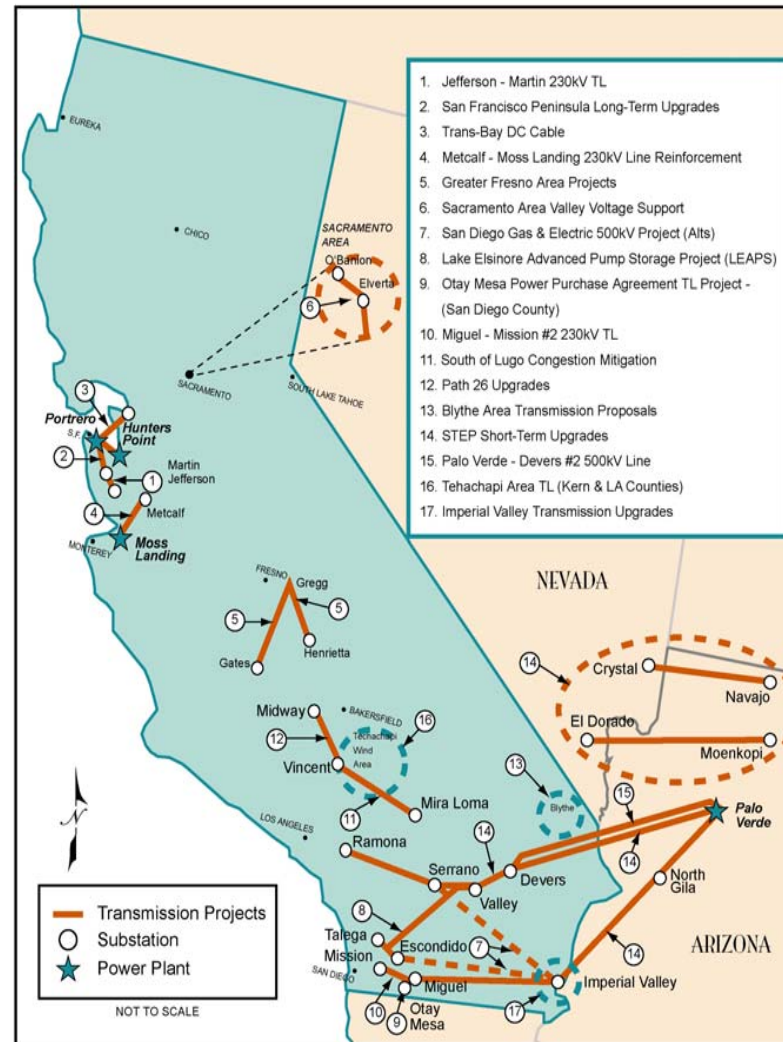


## **Starting Point: 21 Projects in 2005 Staff Report (Pub. no. CEC 700-2005-018)**

- #1 Jefferson-Martin 230 kV line
- #2 San Francisco/Peninsula Long-term Upgrades (2011+)
- #3 Trans-Bay DC Cable Project
- #4 Metcalf-Moss Landing 230 kV Reinforcement
- #5 Greater Fresno Area Projects
- #6 Sacramento Area Voltage Support Project
- #7 San Diego 500 kV Project
- #8 Lake Elsinore Advanced Pumped Storage Hydro Project
- #9 Otay Mesa Power Plant Transmission Project
- #10 Miguel-Mission No. 2 230 kV Project
- #11 South of Lugo Congestion Mitigation
- #12 Path 26 Upgrades
- #13 Blythe Area Transmission Proposals
- #14 Short-term STEP Upgrades
- #15 Palo Verde-Devers No. 2 Transmission Project
- #16 Tehachapi Area Renewables Interconnection
- #17 Imperial Valley Transmission Upgrades
- #18 Frontier Transmission Project
- #19 Northern Lights Transmission Project
- #20 Southwest Intertie Project
- #21 East of River 9000+ Project



# The 21 Projects (17 shown here)





## **Seven Projects Remain after Screening for On-line date and Siting Approval Status**

- San Diego/Imperial Valley
  - #7: San Diego 500 kV project (aka Sunrise Powerlink Project)
  - #8: Lake Elsinore Advanced Pumped Storage Hydro Project
  - #17: Imperial Valley Transmission Upgrades
- Southern California/Tehachapi
  - #11: South of Lugo Congestion Management
  - #15: Palo Verde-Devers No. 2
  - #16: Tehachapi Area Renewables Interconnection
- Northern California
  - #3: Trans-Bay DC Cable project



# Final Recommended Projects

## #15 Palo Verde-Devers No. 2 500 kV Project

- Provides access to lower-cost generation
- Provides insurance against abnormal system conditions
- Reduces market power concerns
- Increases operating flexibility for CA grid operators

## #7 SDG&E Sunrise Powerlink 500 kV Project

- Provides significant near-term system reliability benefits
- Reduces system congestion (and resultant congestion costs)
- Provides interconnection to Imperial Valley renewable resources
- Strengthens the CA ISO grid





# Final Recommended Projects

## #16 Tehachapi Phase 1 (Antelope Transmission Project)

- Crucial to development of wind resources in Tehachapi region
- Supports achievement of RPS goals

## #17 Imperial Valley Transmission Upgrade Project

- Provides access to valuable renewable resources
- Supports achievement of RPS goals
- Provides significant near-term system reliability benefits



## **Recommendations to CPUC to Facilitate Project Development**

- Ensure that permitting processes for PVD2 and Tehachapi Phase I are effective and timely.
- Ensure that long-term strategic benefits are fully addressed for vital projects.
- Assign great weight to need assessments submitted by the CA ISO.



## **Other Recommendations to Facilitate Project Development**

- CA ISO should ensure that results from its new transmission planning process are available by Jan. 2006, and should include an examination of strategic benefits for the SDG&E Sunrise Powerlink Project.
- The Legislature should establish a designation process for transmission corridors and grant authority to the Energy Commission to designate corridors for electric transmission facilities.



# Planning and Permitting Recommendations

- Establish a comprehensive statewide transmission planning process.
- Transfer transmission permitting to the Energy Commission.
- The CPUC should extend the length of time for rate basing IOU corridor investments.
- Investigate changes to the CA ISO transmission expansion tariff.
- Investigate regulatory changes to support clustered development of renewable resources.



# Renewables Recommendations

- State should support formation of stakeholder-based groups to address operational integration issues and transmission expansion plans.
- State should address key intermittent renewable issues
  - Minimum load issues
  - Improvement in forecasts of resource availability



# **Public Interest Energy Research (PIER) Recommendation**

- State should continue to support the research and development of new transmission technologies via the Energy Commission's PIER program.



## ***2005 Energy Report Schedule***

- |                 |   |
|-----------------|---|
| October 14:     | Written comments due  |
| Early November: | Publish the Draft Final Committee <i>Energy Report, Transmission Strategic Plan, and Transmittal Report</i>                                   |
| November 16:    | Energy Commission Business Meeting to consider adoption of the <i>2005 Energy Report, Transmission Strategic Plan, and Transmittal Report</i> |
| Early December: | Deliver report to Governor and Legislature  |



# **Public Comments on *Strategic Transmission Investment Plan***